**“Geotab” Mobile App**

**1st Phase**

**Track vehicles location & historical routes**

High Level Objectives

* Allow fleet supervisors to know the vehicle locations and past routes on-the-go.
* Allow drivers to view their trip history and also receive notification (Google notification)

Technology Requirements

1. The layout must be optimised for the mobile/tablet devices, depending on the screen size. There must be certain screensize breakpoints that allow the app know how to layout itself in various screen sizes. Optimise for 5-inch to 10-inch screens.
2. The app must utilise the Geotab SDK to communicate directly with the geotab backend. (refer to the SDK for code samples). Currently, there is no expectation for the app to communicate with other backends.
3. The programming language requirements are PHP, CodeIgniter framework, Javascript (jQuery library, etc).
4. App technology such as React Native/Web can be considered
5. The intended deployment is for Android and iOS
6. The server platform, where required, is Linux with Apache. (NodeJS can be an option)
7. The UI frameworks must be 'mobile first', i.e use Bootstrap library.
8. The user authentication must be secure; authentication tokens must be properly cleared upon logout. Also, develop with the end goal to deploy on SSL enabled server.
9. Registered for the default Android notification service.

Screen Flow and Data Requirements, as supported by the Geotab SDK

1. Login page
2. User enters their Geotab credentials and login. The user can either be a fleet manager, or a driver.
3. Main Menu
4. In this main menu, there will be navigation buttons for Vehicles, Maps, Trips, Messages and the logon user Profile.
5. Vehicles
6. This list will display the vehicles in a top-down format.
7. Data such as vehicle name, status, last action (e.g 'Driving at AYE, Singapore for 8s) to be displayed in list panels.
8. Clicking on the 'Trip button' in the item panel will bring up the trip history. Data such as location, date, start time and end time to be shown in a list.
9. Clicking on the 'Map button' in the item panel will bring up the single vehicle's location on the Google Map.
10. Map
    1. Vehicle Map (on mobile phone screen)
    * Shows the location of all vehicles on the Google Map
    1. Vehicle List and Map (tablet screen)
    * Shows the list of vehicles on the left with the last activity, and on the right display the location of all the vehicles on the Google Map.
11. Trips
    1. This will show all the vehicles and their activities in a list format.
12. Messages
    1. This will display the messages between a certain defined date range (e.g for past 48 hours), in a list.
13. Android Push Notification
    1. App is configured to be capable of receiving push notification.
    2. The messages will be pushed from another web application (not from Geotab)

See attached images for reference.

**2nd Phase**

**Navigation Map**

This feature is to allow the navigation app to guide the driver along its waypoints without interaction with the device, during the journey.

Technology Requirements

1. This feature will extend the app described in the 1st phase.
2. The navigation app that this feature should interact with should be in preferred order – Google Map and Waze.

Screen and Process Flow

1. Driver presses on a button, e.g “Guide Me”.
2. This feature will first retrieve the routes of the login user from Geotab. The data resides in Zones & Messages > Routes.
3. The routes will first be displayed to the driver.
4. Driver presses on a button, e.g “Navigate”.
5. Call up the phone OS' navigation app (Google Maps / Waze where the API permits) and pass these routes into them as waypoints where possible.
6. The navigation app functions by itself with the given data to guide the driver along the waypoints throughout the route without the driver's intervention.